REMARKS:

Claims 7, 18, 27, 29-70, 72-88 are herein canceled without prejudice or disclaimer. Claims 10-12 are amended to depend from independent claim 92. Claims 23, 26, 28 and 71 are amended to depend from independent claim 94. The amendments to claims 8-12, 23, 24, 26-88 clarify the wording of the claims, and are cosmetic in nature. Independent claims 92, 94 and 96 are herein amended. Claims 98-99 are newly added. No new matter is added. Reconsideration of the application, as amended, is respectfully requested.

Claims 2-6, 8-16, 19-26, 28, 71, 92-99 are currently pending, with claims 16 and 92-99 being independent claims.

The Applicant acknowledges, with appreciation, the allowance of independent claims 16, 93 and 94. Of the currently pending claims, the Examiner objected to claims 6, 8-11 and 22-25 as being dependent upon a rejected base claim. It will be shown below that the independent claims from which these dependent claims depend are all allowable over the references cited by the Examiner. However, the Applicant reserves the right to amend one or more of these dependent claims to be independent claims at a later date.

It is briefly noted that claims 19-26, 28 and 71 now depend, directly or indirectly, from allowable independent claim 94. For at least this reason, dependent claims 19-26, 28 and 71 should be allowed.

In the Final Office Action dated July 10, 2007, independent claims 92 and 95-97 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Szalajski et al.* (U.S. Patent No. 6,275,487) in view of *Bark et al.* (U.S. Patent Application Publication No. 2002/0077138). It is also noted that, of the currently pending claims, the Examiner rejected claims 2, 4, 13-15, 19 and 26 in view of the same combination of references. The Examiner rejected claim 3 under 35 U.S.C. §103(a) as being unpatentable over *Szalajski et al.* in view of *Bark et al.* and further in view of *Nishino* (U.S. Patent No. 6,347,083). The Examiner rejected claims 5, 12, 20, 21, 28 and 71 under 35 U.S.C. §103(a) as

being unpatentable over *Szalajski et al.* in view of *Bark et al.* and further in view of *Derryberry et al.* (U.S. Patent No. 6,498,785). These rejections are respectfully disagreed with and are traversed below. For the following reasons, it is respectfully submitted that all pending claims of the present application are patentable over the cited references.

ARGUMENT I

Unamended claim 92 recites:

> A method of controlling power with which information is transmitted by a first station to a plurality of second stations **on a common CDMA channel**, different information being intended for different stations, said method comprising the step of transmitting said information in said common CDMA channel, wherein said information intended for different second stations are transmitted at different power levels. (emphasis added)

The broadest reading of the term "common channel" would be the definition attributed to the term by one of ordinary skill in the art at the time the invention was made. In view of this, the term "common channel" is a term that is well known in the art. It is widely accepted that a common channel is a channel that is transmitted to and received by a plurality of mobile stations at the same time (i.e., a channel that is "common" to a plurality of mobile stations, such as a broadcast channel like the BCCH). Dedicated channels, on the other hand, are channels which are only properly received by the mobile station to which they are dedicated.

Claim 92 reflects this interpretation of the term "common channel." One of ordinary skill in the art at the time the invention was made would understand the phrase "controlling power with which information is transmitted by a first station to a plurality of second stations on a common CDMA channel," as recited in claim 92, to correspond to the accepted definition of a "common channel."

Szalajski et al. relates to an arrangement for varying the power of the transmission of **dedicated** logical traffic channels **while keeping constant the power at which common logical signaling channels are transmitted**. In contrast, exemplary embodiments of the present invention relate to controlling the power of a common channel such that the power can be varied for information broadcast on the common channel and intended for different mobile stations.

In *Szalajski et al.*, physical channels are used to describe common time slots in different time frames. For example, at col. 1, lines 32-38 of *Szalajski et al.*, it is stated:

> In the conventional way, each carrier is segmented temporally using a fixed time-division multiple access (TDMA) scheme. The time axis is divided into successive frames of fixed duration each divided into a particular number of time slots, **the recurrence of a particular time slot in each frame constituting a physical channel onto which a plurality of logical channels can be multiplexed**. (emphasis added)

Thus, multiplexing logical channels onto a physical channel occurs by transmitting logical channels in the same time slot of different (e.g., successive) time frames (i.e., transmitting logical channels on a same physical channel). Thus, each logical channel transmitted on the same physical channel is transmitted at a different time.

According to *Szalajski et al.*, and as is apparent from the above quotation thereof, one can distinguish between a carrier, a physical channel and a logical channel. A carrier (e.g., a BCCH carrier) has a number of time slots with each time slot carrying a physical channel (e.g., a physical BCCH). The physical channel, as defined above, may contain a plurality of multiplexed logical channels (e.g., including a logical BCCH).

For example, a BCCH logical channel transmitted in time slots IT0, IT3 and IT6 (see FIG. 1 of *Szalajski et al.*) would constitute a common channel.

It is noted that one of ordinary skill in the art would understand a "common channel," as

discussed above with particular reference to claim 92 of the instant application, to correspond to a logical channel in the vernacular described and utilized by *Szalajski et al.*

On page 2 of the outstanding Final Office Action, with respect to claim 92, the Examiner asserts:

> Szalajski teaches a method of controlling power with which information is transmitted by a first station to a plurality of second stations on a common channel, different information being intended for different stations, said method comprising the step of transmitting said information in said common channel, wherein information intended for different second stations are transmitted at different power levels (Szalajski see col 2, line 56 – col 3, line 20).

At col. 2, line 57 – col. 3, line 23 of *Szalajski et al.*, it is stated:

> The above objectives, and others that will become apparent hereinafter, are achieved in accordance with the invention by means of **a BCCH carrier transmitted by a base station of a digital cellular mobile radio system to a plurality of mobile stations**, the BCCH carrier being segmented temporally into successive frames of fixed duration, each of the frames being itself divided into a particular number N.sub.IT of time slots; **the BCCH carrier supporting a physical BCCH itself carrying at least one logical BCCH**, the logical BCCH transmitting general signaling information known as BCCH information, each mobile station, for which the base station transmitting the BCCH carrier is an adjoining base station. having an least one monitoring window in each of at least N_T successive frames, where $N_T \geq 1$, i.e. at leas. N_F successive monitoring windows for receiving the BCCH carrier in particular, each monitoring window enabling the mobile station concerned to receive at least N_E time slots of the BCCH carrier, where $N_E \geq 1$, **wherein the BCCH carrier supports at least N_R physical BCCH transmitted at constant power and consisting in the recurrence in each frame of N_R time slots known as BCCH time slots**, the physical BCCH or each of the N_R physical BCCH carries at least the logical BCCH, the BCCH time slot or each of the N_R BCCH time slots containing the BCCH information at least once in N_T successive frames, the number and the spacing of the BCCH time slot or time slots are such that the BCCH information is entirely received in the monitoring window or one of the at least N_p successive monitoring windows of each mobile station, **and the time slots other than the N_R BCCH time slots are transmitted with a power that can be controlled.**
>
> Thus the BCCH carrier of the invention is not transmitted at constant

> power, which reduces the level of interference on the BCCH carrier and increases re-use of the BCCH carrier in the various cells. (emphasis added)

Thus, *Szalajski et al.* state that while the BCCH carrier is not transmitted at constant power, the BCCH time slots corresponding to the logical BCCH transmitted on the physical BCCH ***are transmitted at constant power.***

Further reference in this regard may be made to *Szalajski et al.* at col. 5, lines 52-58 which states:

> As shown in FIG. 1, in the first particular embodiment of a BCCH carrier of the invention, of the 9 ($N_{IT} \times N_T = 9 \times 1$) time slots of each frame of the BCCH carrier, **a particular number ($N_R = 3$) of time slots IT0, IT3, IT6 called BCCH time slots are transmitted with constant power**. Remember that the recurrence of each BCCH time slot constitutes a physical BCCH. (emphasis added)

What *Szalajski et al.* disclose is that channels other than the BCCH, namely dedicated channels, are power controlled. Reference may be made to col. 3, lines 40-55, where *Szalajski et al.* state:

> Each time slot (and therefore each corresponding physical channel) whose power can be controlled, i.e. **other than one of the BCCH time slots,** carries one or more multiplexed logical traffic channels used by mobile stations whose current cell is that associated with the BCCH carrier concerned. Controlling the power of each of these physical channels is principally intended to use only the minimal power necessary for correct handling of traffic. **Obviously this minimal necessary power is directly dependent on the position of the mobile station concerned relative to the base station of its current cell.** Accordingly, the physical channel that carries a logical traffic channel of a mobile station near its current base station requires much less power than that carrying a logical traffic channel of a mobile station at the cell boundary. (emphasis added)

The above description is of a *dedicated physical channel.* That is, each other physical channel (i.e., each non-BCCH channel) directly corresponds to a specific mobile station (i.e., the power of each is directly dependent on the position of the corresponding mobile station relative to the base station). Clearly, the identified physical channels whose power can be controlled are not channels that are transmitted to and received by a plurality of mobile stations. The information transmitted on the identified physical channels whose power can be controlled is intended for a

particular mobile station.

To phrase this argument in another fashion: (i) the only common channel disclosed by *Szalajski et al.* in the portion cited by the Examiner (i.e., col. 2, line 56 – col. 3, line 20) is the BCCH time slots that are transmitted on the physical BCCH; (ii) there is no indication that time slots other than the N_R BCCH time slots are common for the plurality of mobile stations; (iii) *Szalajski et al.* state that the BCCH time slots are transmitted with constant power; (iv) therefore the only common channel discussed by *Szalajski et al.* (the BCCH time slots transmitted on the physical BCCH) is transmitted with constant power; and (v) there is no indication that any information transmitted on a common channel (i.e., on the BCCH time slots) is transmitted at different power levels.

There is no disclosure or suggestion by *Szalajski et al.* of having a common channel (i.e., a channel that is intended to be received by a plurality of mobile stations) where power control is applied to that common channel such that information for different mobile stations is sent with different power levels. More specifically, and contrary to the Examiner's assertion, there is no disclosure or suggestion by *Szalajski et al.* of "transmitting [] information in [a] common CDMA channel, wherein said information intended for different second stations are transmitted at different power levels," as recited in claim 92, for example. Furthermore, *Bark et al.* is not seen to disclose or suggest these elements of claim 92, nor does the Examiner argue otherwise. Claim 92 is patentable over the cited references and should be allowed.

ARGUMENT II

Exemplary embodiments of the instant invention are directed to solving a technical problem of reducing interference caused by the power level of the common channels. The exemplary embodiments address this by providing power control in respect of the common channel with information intended for different mobile stations being transmitted with different power levels.

In contrast, *Szalajski et al.* disclose a mobile station arranged to measure the signal strength of the BCCH carrier when the common logical BCCH is transmitted. As explained above, the logical BCCH of *Szalajski et al.* may be seen to correspond to the common channel recited in claim 92 of the instant application, for example. According to *Szalajski et al.*, it is essential that the logical BCCH is transmitted at constant power in order for the arrangement described by *Szalajski et al.* to operate (see col. 3, lines 24-30). Accordingly, *Szalajski et al.* may be seen to teach away from the concepts of providing power control for a common channel and, in particular, using different power levels for information transmitted on the common channel, where that information is intended for different mobile stations.

ARGUMENT III

Amended claim 92 recites:

> A method of controlling power with which information is transmitted by a first station to a plurality of second stations on a common CDMA channel, different information being intended for different stations, said method comprising the step of transmitting said information in said common CDMA channel, wherein said information intended for different second stations are transmitted at different power levels, and said first station receives information from a controller on the power with which information for a respective second station is to be transmitted.

This may generally be seen to correspond to an element previously recited in claim 7, which the Examiner had previously rejected in view of *Derryberry et al.* The Examiner previously alleged that *Derryberry et al.* disclose a radio network controller that controls the power control of the system. However, in accordance with the disclosure of *Derryberry et al.*, the transmit power controller 326 and the control processor 322 are part of the base station 10. Thus, the base station 10 is making the power control decision. This differs from the subject matter recited in

amended claim 92, wherein "said first station receives information from a controller on the power with which information for a respective second station is to be transmitted." Clearly, *Derryberry et al.* cannot be seen to disclose or suggest "said first station receives information from a controller on the power with which information for a respective second station is to be transmitted," as recited in amended claim 92. Furthermore, it is submitted that neither *Szalajski et al.* nor *Bark et al.*, considered separably or in combination, disclose or suggest this element. Amended claim 92 is patentable and should be allowed.

CONCLUSION

The features recited in claim 92 are not disclosed or suggested in the cited art. *Szalajski et al.* in view of *Bark et al.* does not render claim 92 obvious. Therefore, claim 92 is patentable and should be allowed.

Though dependent claims 2-6 and 8-15 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 92.

Independent claims 95-99 recite subject matter similar to that of claim 92 with respect to Arguments I and II presented above. Furthermore, independent claims 96 and 98 recite subject matter similar to that of claim 92 with respect to Argument III presented above. For the reasons stated above with respect to claim 92, claims 95-99 are similarly patentable over the cited references and should be allowed.

The Examiner is respectfully requested to reconsider and remove the rejections of claims 2-6, 8-16, 19-26, 28, 71, 92 and 95-97 under 35 U.S.C. §103(a) and to allow all of the pending claims 2-6, 8-16, 19-26, 28, 71 and 92-99 as now presented for examination. For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Should any unresolved issue remain, the Examiner is invited to call Applicants' agent at the telephone number indicated below.

Respectfully submitted:

October 10, 2007

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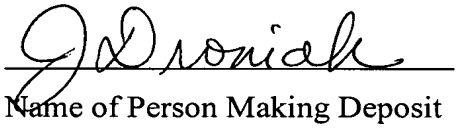

Oct. 10, 2007

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